

Online video sharing: from flea market to global marketplace

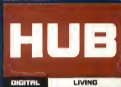
November 2006

Volume 15 Number 11

Free



Evolution of the blog
The state of WiFi
Colour laser printers
Hot iPod killers
Games for Windows



Photography Tutorial: Winterize your photography



Living Online

Digital imaging

Home & Entertainment

Personal Computing

Total Gamer

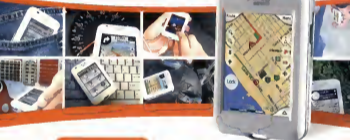
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Editorial



Info on the loose

Can you imagine life without the Internet? This month's focus is "living online" and the Internet is how most of us fulfill that. The Internet is shaping us as much as we shape it, just as radio and TV shaped us, was shaped by earlier generations.

More than a half century ago, a Canadian political economist named Marshall McLuhan wrote what were to become two of the most influential books on the role of communications media in shaping culture: *Understanding Media* (1964) and *The Gutenberg Galaxy* (1961). McLuhan suggested that the nature of his communications technology influenced the outlooks and possibilities of a civilization. The often used example is the rise of paper-based communication, which is very portable compared to something like a clay tablet and thus can spread information and ideas more easily and quickly. Paper and its sibling, the printing press, permeated the sea of European empires, in a manner of speaking.

Info influenced another great Canadian media theorist, Marshall McLuhan. McLuhan was interested in mass communication, particularly popular media and his famous aphorism "the medium is the message" is shorthand language that TV itself changed culture, over what was on the tube. In short, instantaneous electronic communications created a global village.

Some analysts have suggested that the daily TV cast of the horrific destruction in Vietnam and body bags of US soldiers arriving home was a big factor in turning public opinion in the US against the war in the 1960s. Today, opposition and friendly administrations alike try to manage media more effectively, including the Internet. Coincidentally as I was writing this editorial an invasion popped up in my email. It was to a broken log, lunch seminar in Ottawa, sponsored by the Information

Development Research Centre. The session was called Controlling Internet Content Worldwide: Policing, public policy of creating citizenship? The invitation read "Not long ago, the Internet was thought of as an open, self-policing community - one that held special meaning for developing countries by promising to unleash a knowledge revolution. Today, along with the explosive use of the Internet throughout the world, there is also increasing pressure as governments seek to reinstate control over Internet content."

Can anyone or any government control Internet content? Like paper in relation to clay tablets, the Internet sets loose information that gatekeepers of traditional media may have wanted to control - and that has huge implications both good and bad. The unifying aspect of information on the loose is that it is unpredictable in its consequences - it can result as well as endanger individuals and societies as a whole. And that describes the Internet today - explosive and dread, harmonious and menacing, sherry and greed walking, and in sum, in the western world, governments have started deal of wholesale censorship or draconian legislation to limit what goes online, (at least to our knowledge), but a smaller tension has long existed online between individual and commercial, especially corporate commercial interests. We saw it in music, where online music sharing of MP3 files was a serious setback for the mainstream music industry and forced it to fundamentally alter its business model. Meanwhile, the online scene flourished. This issue, Lee Robinson's article on online video sharing traces a similar tension where personal and commercial video is a fight for audience. The huge popularity of YouTube and similar hosting sites points to a primus demand for something beyond the three formulas used in network TV programming, yet websites were relatively quick to size the numbers and realize there was an opportunity for them too.

Enjoy the issue,
David Briska, Editor-in-Chief

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Editorial

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Online video sharing

From flea market to global marketplace

Online video sites are like a digital media flea market. Folks come to show, share and swap their wares, unconcerned by over-riding commercial concerns. That can be good or bad, frustrating or satisfying – but it's all part of an exciting sense of discovery and shared experience.

The online video phenomenon began (much as the Web in general and P2P in particular) by permitting empowerment to individual content creators or documentarians, be they neophyte, amateur, independent or even professional like those who share one's own video content (or musical favourites or personal photo albums or chosen journalist submissions) online opens up an almost unrecognisably wide landscape of styles, concepts, interests and audiences. Many viewers say it's precisely the marginality of such content that gives video sharing its unique vibrancy, and even increasing popularity.

Among websites ranked by comScore Media Metrics, for example, YouTube scored 15.1 million unique visitors in August (up 31 per cent over the previous month) – that makes it the 32nd most-visited Web property. Web surfers now download 500 million videos a day on YouTube – some more than 30 minutes long.

Most sites – like Digg, YouTube, MySpace, Diigo, News, Google, Reckless, Livefyre and others – are technology enablers, providing storage space and bandwidth. It's the creators themselves that fuel the fire, creating entirely new markets where the major media companies apparently thought none existed.

Rewriting and commercialising online video

But now, things look a bit different, and the local flea market is beginning to look like a global shopping mall.

"Online video is emerging from its infancy and entering the mainstream. Many publishers and advertisers are responding to this trend, which means advertising dollars will continue to migrate online where consumers can be targeted with efficiency," says Jack Flanagan, well-known Internet guru and founder of the online audience measurement firm.

Flickr, the original Canadian photo-sharing site, was snapped up by an international media conglomerate. MySpace has a deal with Fox TV. MSN has a video deal with Google. User-generated content will still be available, but popular TV shows are featured and sold online more and more.

Like on YouTube, it signed a deal with giant Warner Music (but it is a legal limbo with others), and will offer as many established stars and branded artists as it does user-generated material.

As yet unsettled issues with user-generated content are questions of ownership, rights and compensation. Legal eagles are still exploring the ramifications of hosted material that is deemed libelous or defamatory, even as they probe over who controls the material in the first place, and who may benefit from its exhibition or distribution.

Video submissions to MSNBC, for example, are covered by an agreement that grants the company "a royalty-free, perpetual, non-exclusive, unrestricted, worldwide license to use, copy, sublicense, adapt, transmit, publicly perform or display" any contributions it gets. Interestingly, those rather comprehensive rights are also granted to third-party sub-licensors.



A less commercial approach is followed by online video sites such as Digg, which operates under the Creative Commons Public Domain License, stipulating that video submissions are "dedicated" to the public domain.

In the case of YouTube, music giant Warner has licensed its songs to YouTube, so that anyone who uploads their own version of a popular tune are allowed to do so — usually YouTube will use tracking technology to tag people uploading copy protected songs, and it will pass the information on to its corporate decision-makers to see if the video gets “approved.” Some might argue that far too considerations in most copyright laws already allow much leeway.

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While protection from legal liabilities is one significant consideration when sharing video, personal broadcasters are looking to supplement their own income, not that of a million-dollar artist.

One approach is the revenue sharing model unveiled by Google or iStock. People who post videos may set their own price points, in terms of profits depending on content, quality, length and other factors. Some online video sharing host sites are exploring ways to share advertising revenue with the content creators, as well.

House of slides: In just one month, however, Congress passed two bills that



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These results are in line with the literature on the role of the state in the development of the private sector. The results suggest that the state should play a more active role in the development of the private sector, particularly in the areas of infrastructure, human capital, and institutional development.

by using new digital media tools to broadcast video, photo and audio content directly from their desktop. Software from RICO and others, enables the distribution of seemingly unlimited amounts of personal media from a user's own personal broadcast site (their PC).

Users face no limits to the size or amount of digital media content they broadcast, and avoid the effort of uploading pictures. Pappo says it will soon incorporate tools to let users manage their own content.

The site of personal broadcasting, as opposed to posting videos on a hosted site, is also behind Sockam, a new Web application that allows anyone to broadcast live streaming video over the Internet. In addition to uploading videos, pictures and music on a personal blog or website.

Videos can be viewed by virtually anyone (there's no software to install) and will play on Linux, Windows and Mac systems.

Toronto's BubbleShare, with an enhanced photo and video sharing service, lets users view content instantly on the desktop without opening their browser or email application. BubbleShare is a no-registration-required, voice-caption enabled service for sharing stories over the Internet. Users can upload photos individually or in batches, record 30-second audio captions if desired, and then email albums to friends and family by entering one or more email addresses. The basic service is free, with a premium service due to launch later in 2005. No word on whether video sharing capabilities will be included in a future release.

From its Lehighridge, Alberta offices, James Wood of Spymac Leapfrog, a platform-specific tool for video chat, as well as posting and finding content for the newly enhanced photo, interestingly, Leapfrog-enabled sites are automatically reorganized, depending on location and language, as a way to re-constructive the content for users around the world. Spymac Leapfrog will be available later this year.

Finding similar content, and sorting through all the video clips out there, is another key aspect of online video sharing, and new tools and being released to cut through it all.

Clipdient has introduced video search technology and what is called the first online video search toolbar, which allows users to search for video across the Web – a capability that even search-engine stalwarts like Google and MSN do not provide. Clipdient says it's been indexing millions of clips already, categorizing video files, Web pages and feeds so it can serve up content in real time, on demand.

Clipdient also offers back-end capabilities that organize and manage video libraries, providing content owners and advertisers with revenue opportunities drawn from targeted video-viewing audiences.

Videocasting-Station.com is a new categorized directory that helps individuals or businesses find the latest video feeds from a single location.

The directory lists a range of content from serious corporate video messages to humorous user-generated content. You can also search for specific videos or topics of interest by content, keyword, tags and so on. It's like a department store "You Are Here" map, but at your favorite flea market.

By Lee Rockwood

Lee Rockwood operates World Is A Mine, an independent company providing editorial, media production and consulting services to individuals and companies across North America. He can be reached at lee@worldisamine.com.

Et Tu, YouTube

She isn't lonely. She's not 15.

She is lonely, but lonely girl15 is not even human in some ways. The popular MySpace webcam is really a professionally produced viral marketing campaign.

Born recently by Web curators who thought her persona, her words, and especially her video clips, looked a little too good to be true, "lone15" is thriving for a creative ad agency, the powerful Creative Artists Group in Hollywood. Two established filmmakers are making her viral posts, and they say they will continue to do so.

Whether the site will continue to draw some 2.5 million visitors, now the cat has been let out of the bag, remains to be seen. Much of the interest in user-generated content comes from the fact it could be us. It's P2P (people to people) [not B2C (business to consumer)].

Was the relationship between YouTube and its visitors (or between any video sharing service and its community of interest) been permanently altered as a result of blatant manipulation and misrepresentation?

Or is "lone15" still talking.

Name Suggested Links and Online Resources

www.blinkx.com

www.bubbleshare.com

www.clipdient.com

www.hellfiremedia.com

www.google.ca

www.myspace.com

www.ohmynews.com

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Photography Tutorial: Winterize your photography

Digital cameras are proving tough. Photographers take them on trips to the Arctic and the Sahara and return with remarkable footage. So, don't think you have to hang up your camera gear or restrict yourself to indoor situations because our cold snowy season is approaching.

Cold weather shooting does impose a couple of extra challenges that you need to think about, however. First, in the cold, battery life sucks. Last winter I left my camera bag in the trunk of my car for just a few hours, but that was enough to kill the battery. Admittedly it was a very cold February day, but I was surprised at how quickly the battery was affected. Normally it's good for 250+ shots and since my trip was a short one, I left the extra battery and

the charger at home. No photos for me. The quick lessons from that are keep the camera – or at least the battery warm, and carry a spare (and keep it warm too).

If you solve the battery problem and manage to stay outdoors long enough to get the camera mostly chilled, the next act of bringing it inside exposes it to another potential hazard – condensation. Eyeglasses wearers know glasses fog up every time they come in from the cold. Now that phenomenon will moisture inside electronics is generally not a good thing and can lead to problems like corrosion. The simple solution, that even some camera manufacturers recommend, is to seal the camera inside a zip lock bag and leave it there until it warms up to room temperature.

A lot of moisture landing on the outer surfaces of a camera – for example, from snow or rain – is generally nothing to get concerned about, but there is a light to how much moisture a camera will withstand. Advanced cameras, or ones specially designed to be waterproof, are better at this because they have seals to keep moisture out. The kind of Canadian winter moisture that is all around us is salt laden stuff. Keep a towel in your bag and dry off your camera if it has a wet encounter.

One of the general hazards of winter living is ice on walkways. If you slip and fall with an unprotected camera, the chances are good that the camera will suffer some damage. A padded case will protect it from smaller bumps, as well as from precipitation. Accidents like the *LivePhoto* TopLoad nicely handles an SLR with a zoom lens.

One of the overall considerations for winter shooting is that snowy scenes tend to fool the camera's exposure meter, and the result is shots that are too dark. If you use your camera on an auto or programmed exposure setting, you should be able to adjust the exposure with an exposure compensation setting. This is often called an EV setting, and the adjustments might run from -2 to +3. If your scenes are too dark, you'll want to dial in a + setting, which increases the exposure.

Some cameras also have an exposure lock feature. This allows you to zero in on an area that you want properly exposed – someone's face for example – and then hold that exposure while you recompose the scene.

By David Tomasko



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Evolution of the Blog

Podcasts and videocasts are changing blogging

Blogging has become one of the most popular uses of the Internet today, offering a central location to post your thoughts and opinions for friends, family, and the public at large. It's quite an appealing proposition for the tech-savvy and casual user alike. While text is arguably the quickest and most fundamental way to get a message across, audio and video are often far better at conveying a message. As podcasts become increasingly easier to produce, we are slowly but surely seeing the Internet evolve into a more audiovisual realm. So much so that it may not be too long before audio and video blogs become the norm.

"Podcasts/videocasts and audio/video blogs are often used interchangeably," says Amber MacArthur, CNET's Senior Media Specialist and co-host of the videocast *CommandR*. "The major difference is that is often highlighted is that a podcast/videocast takes on the format [of a] radio or video show. An audio/video blog tends to be more personal—in individual's view on the world."

Podcasts are a major driving force behind multimodal content on the web, and audio and video blogs may follow because they share such a similar production process. Operating systems now include the recording software applications to create podcasts (and hence audio and video blogs). Windows Movie Maker and Apple iMovie are not as fully featured as standalone video-editing software (like Adobe Premiere or iMovie Xpress), but both offer more than enough functionality to perform some pretty interesting editing effects for user-created videos. Furthermore, whatever can't be done with OS-included software can usually be accomplished using various freeware applications found around the web.

One of the greatest aspects of user-created content, which is especially true for video and audio blogs, is that there isn't a rule that says it must be professionally produced. In fact, it's quite the opposite, partly because the technology is easier to use and more accessible. "In the camera parlance [sense], never to use and often more tools for video/video incorporation, individuals will want to shoot homemade clips from their cellphones or digital cameras and post them on their own personal blog. Also, as more websites offer up the functionality for people to post from their cellphones, and the cellphone video technology gets better, I think we'll see an abundance of videos pouring into the blogging space," says MacArthur.

Editing your material, although preferred (since professionalism can add credibility), isn't absolutely necessary. Fundamentally, all you need to make an audio/video blog is a webcam or microphone (or any other device that captures audio or video) and a decent web connection. Once you've recorded an entry, there is nothing stopping you from posting it, so, in, on your blog, instantly releasing it to a worldwide audience.

"Eventually, I think video will be as commonplace online that people will be regularly hooking up their computers to their TVs or monitors to [watch] the wealth of content that is available online."

Along with being easier to make, affordable places to host podcasts are becoming increasingly common as well. "Inexpensive bandwidth via services such as iLuvIt, are really helping anyone break into the podcasting space. A few years ago, it could cost thousands of dollars to host your own large files online—but now you can do so for as low as \$30 a month."

In fact, some sites, such as YouTube and iShare, already allow users to upload their own video and video blogs for free. As with all technology, as

we go forward, the hard drive space used and bandwidth needed for the electronic distribution of this kind of media will inevitably reduce in cost. Eventually, offering to host user audio and video content for free could very well be expected from major online outlets.

"There is nothing more powerful than a moving image," explains MacArthur. "Whether it's a first-person account of a coup in Thailand or a 15-year-old girl complaining about too much homework."

Combining simplicity with inexpensiveness makes any form of content creation intriguing, particularly those that build a thriving community around it (like blogging has). Taking a look around the web, it seems more than plausible for video and audio blogs to quickly become commonplace. While the phenomenal success of YouTube—whose most viewed objective been, ironically, a series of terrible video blogs—has further proven that there is an interest for this type of content, the bottom line is that it's always more reliable and engaging to see or hear someone

By Mike Palmero



Musicians love MySpace

Social networking sites offers more than just a place to network.

More than just blogs, social networking sites like MySpace serve as a kind of online portal where users can share photos of themselves and information about their interests and passions, subscribe to groups, and create friends and friends networks for business contacts, friends and even dating.

But before you write MySpace off as yet another online refuge for angry teenagers, narcissists, nerds and creepy old men wanting to "chat," consider this: High-profile users include Toronto mayor David Miller (myspace.com/davidmiller), Canadian music icon Neil Young (myspace.com/neilyoung) and ex-Seattle '80s Paul McCartney (myspace.com/paulmccartney).

MySpace has also become a hotbed for indie bands (and even neo-no-wave — check out myspace.com/greenday, myspace.com/redhotchilipeppers or myspace.com/a2) to showcase their music to a wider audience, and large corporations with fans through non-traditional methods.

News Corp., who purchased MySpace last year for US\$280-million, now estimates the website's worth to be around \$3 billion.

Bands who sign up for MySpace pages can use special templates tailored to their unique demands, including an embedded music player where they can stream their songs for people to listen to, a bulletin board for posting concert dates and new releases, and a bio section that can contain information about each band member, the band's influences, record label, and a link to the official website.

The ease with which MySpace allows bands to set up custom pages that offer music files, images, biographies and tour dates is what makes it stand out over other social networking sites, according to Adrienne Lloyd, bassist for Toronto band Hunter Valentine (myspace.com/huntervalentine): "We currently have two tracks posted on our MySpace where people can simply our music. It seems to be a great way to promote yourself with people who are actively listening to bands through MySpace sites," she says. "MySpace also allows you to search by area, so for playing shows on tour, it seems to be a new way of promoting shows to people in those various towns."

According to Paul Barnett, drummer for Clementine (myspace.com/clementineband) and The Rill (myspace.com/rill), one of the great things about MySpace is the ability to discover new bands just by listening to songs that friends have on their profiles — in other words, the concept of



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social networking is taken a step further to include musical networking as well.

For music fans, MySpace is a unique opportunity to interact with their favorite bands on a far more grass roots and personal level than through the passive approach of an official website or fan club. It's not uncommon for band members to interact directly with users by leaving posts and comments, which represents a major shift in how bands and other indie organizations can reach people.

"[MySpace] gives the illusion that you can be 'friends' with your favorite bands. It tends to emotionally attach folks to their bands, which in turn tends to record sales because people really feel the need to support their friends," says Davis-Harris, publisher for Maple Music Recordings.

"From a marketing point of view, it's a great research tool. You get a good feel for the people the band attracts, you can see which other musicians are digging the tunes [and that helps when it comes to planning appearances/tours], and you can also keep current fans entertained by posting things like unreleased tracks. It really is a great touchstone for keeping tabs on fans."

Another benefit of MySpace is that it's a free service, both for bands to host their music, and for fans to listen.

"Being an indie musician costs at least some money — for instruments, rehearsal space, and transportation — and provides very little income," says Barnett.

"I think if I had to choose between an official website and a MySpace profile, I'd take the MySpace profile."

By Erin Bell

MySpace for event coordination

Bands aren't the only ones taking advantage of the uniquely grassroots networking approach that MySpace offers. When Moonies jewelry designer Haniya Chen was given the task of putting together a web site and press release for the Kit 'n Katoodle craft sale in Toronto on a tight budget and deadline, she created a MySpace page to be used as a coordination point for the event.

(myspace.com/kitnkatoodlecraftshowandale)

"We needed something that was easily changeable and at the same time easily accessible to as many people as possible. Many of our exhibitors were already MySpace users, so we thought it would be a great networking tool. In the last week before the show we had about 1,200 people view our page, which was fantastic," she says.

"MySpace allowed us to have all the necessary info online and have an easy way to network. And for someone who had no idea how to design a traditional website, it was fairly easy to put together our page and make changes with the addition of each new vendor."

Were there any frustrations? "Not too many," says Chen, "other than the fact that the Kit 'n Katoodle Show and Sale seems to get a few messages asking the Show out on a date. We need to think of a good way for the Show to turn them down!"

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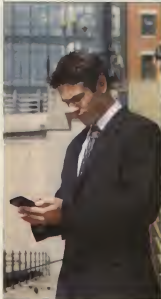


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On the street

In most Canadian cities, public WiFi access is pretty good, but on the street, a potential user will still encounter two barriers. First, finding a WiFi hotspot may not be so easy, especially if you're just passing through a city and aren't too familiar with the local landscape. Many friendly local hangouts offer free WiFi access, but you'd know that only if you were a local. Secondly, if you encounter a hotspot and it's a commercial service you may have to start an account, which is pretty inconvenient if you visit that locale just once.

A couple of years ago the major cellular phone carriers, realizing this was what you all were after, attacked the problem in the same way they solved spotty cellular phone coverage — with roaming agreements. In 2004, Bell, Telus, Rogers and Fido adopted a common HotSpot logo to identify participating locations, and set up the legal so that you could access the hotspot and pay for usage on your cell phone account. I used the service in Calgary Airport and in several coffee chains across the country and this solution gets a long way to solving the two problems. First, because the participating locations are most often chains that people readily recognize and business travellers might be inclined to visit, the "where is it?" question is partially solved. If you know to look out for the logo, finding one of these HotSpots becomes a little easier because most businesses will post the logo on their door. Common locations are Mailboxes Etc. (now UPS Stores), some lawn shops (I noticed the logo at the local Starbucks attached to Chapters bookstore) and places like that.

Secondly, as long as you have a cell phone account from one of the four carriers, you'll be able to use the service and not have to start a separate account or give out credit card information. The prices vary as how they charge for usage, with some giving you have to buy a block of time and are billed for that block, regardless of how much time you actually use. Others simply meter the usage and charge by the minute.

Business travellers

You'd think that public WiFi would be seamless for business travellers, but we're still in the dark ages here with surf barriers and fiddlers being the

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norm. Some hotels offer high-speed Internet, either wired or wireless as a free convenience, while others treat it as a profit multiplier, typically charging \$10 for a 24-hour usage period. But at least you don't have to divulge credit card information as it typically goes on your room account.

Unless you have access to executive class lounges, connecting at the airport can also be a crapshoot. I recently travelled through Pearson's new Terminal 1 in Toronto, and discovered the WiFi service there provided by Comscore Communications. After giving them permission to lighten my credit card account by the going daily rate, I was online. But a clear e-mail confirmation that I'd solve to register again if I wanted to use the service in the future leaves me to the uncomfortable suspicion that my credit card number is forever in its clutches. My experience at Calgary Airport, paying for Internet usage using cell phone account, was much more agreeable.

For the past year, WA Rail has been implementing an on-train WiFi service throughout the Montreal-Moscow corridor as well as in the 22 stations on the line. The service began in business-oriented NAL coaches and Panoramia Lounges, but will include coach class too when fully rolled out. Cost: \$8.95 per day (per minute and per month rates also offered), and get another account to get up.

In the hinterlands

Believe it or not, you can get WiFi access at the Headwaters Campground in Brandon, Manitoba. At least you could in 2005. That year, my wife and I took a road trip from Alberta, where we now live, to Ontario, where we used to live. Our camper van, which has doubled as a mobile technology lab for

many years, was once again put into service. The mission: to see how WiFi connected we could be beyond the metropolis.

This was, in short, an elegant experience, but with a few rough spots. The Headwaters and another campground west of Thunder Bay, Ont. were the surprise. The logs were online and the signal was unless you were in the office where the router was. But the potential as a tourism booster seemed good — insight logging into a local community's web site after pulling into a campground and being able to plan the next day's activities around the latest event schedule or discover all the things in the area worth a visit that the tourism brochures fail to mention.

The reason why it was largely optimal gets back to one of the problems already stated — finding WiFi locations in strange places. I had downloaded a list of WiFi locations from a web site before leaving on the trip, but it was a pain trying to find specific street addresses of after-school storefronts. After wandering around an industrial park in Winnipeg looking for a Mailboxes Etc. location, we decided that the vacation was beginning to feel too much the work and abandoned the project. So finding the WiFi campground near Thunder Bay was a lucky coincidence because we were no longer seeking them out.

Once we got into southern Ontario, WiFi was as common as lettuce — an overabundance of service, in strong contrast to the vast reaches of northern Ontario where even cell phone service is a sometimes thing.

By David Sanku



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Apple has announced the iPod nano (PRODUCT) RED Special Edition (RED) was created by Bobby Shriver and UNICEF to help engage business in the fight against AIDS in Africa by getting some of the world's most iconic companies to make uniquely branded products. So far, Apple, Motorola, American Express, GAP, Burger King and CVS have produced special red editions of popular products, with a portion of the sales profits going directly to the Global Fund to fund programs for women and children affected by HIV/AIDS in Africa.

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Windows Vista Watch: Internet Explorer 7



It was about three years ago that web browser space started to become interesting again. Having long since relegated Netscape Navigator to virtual obscurity, Microsoft had grown comfortable in the knowledge that Internet Explorer was the undisputed monarch of all web browsers.

But then along came an open source browser called Firefox from the non-profit Mozilla Foundation. People quickly warmed to its innovative concepts, which included tabbed browsing, customizable skins, and a highly flexible architecture that allows for countless add-ons and extensions. It became the little browser that could, swiftly growing in popularity—recent estimates place Firefox's total share of the browser market at an amazing 32 per cent.

Microsoft suddenly had competition again.

So, after several years of minor revisions and incremental updates, the software engineers behind the world's most popular web browser went back to the drawing board to reinvent their application and reaffirm its market dominance.

The result: Internet Explorer 7 (IE7), a very different browser than the IE people have grown used to over the years. It's an application that borrows and originates in roughly equal measure.

The most obvious example of IE7's borrowed functionality is tabbed browsing. Microsoft's competitors realized some time ago that IE's method of opening a new browser window for each additional web page viewed was just silly. Tabbed browsing is far more efficient, it requires users to open just one browser window, and with it that window is how far for each additional page. The concept has been competently—if not exclusively—implemented in IE7.

IE7 also seems to have taken a cue from rival browsers in its redesigned dashboard, which

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offers a simplified interface that includes an embedded search box (connected to the engine of your choice), and a grouping of buttons for several commonly used functions, including Home, Print, Tools, and RSS Feeds.

The RSS Feeds button is particularly handy. Click it and you'll be given the option to add feeds from the current web site to your own personal subscription list, which can be accessed from the Favorites pane. It's fast, easy, and makes subscribing to RSS Feeds attractive to users of all skill levels.

But not everything in IE7 has been pilfered from the competition. Given that IE has always been a far more likely target for malware attacks than its competitors, many features in IE7 labeled original and innovative have to do with security. Most of these changes work behind the scenes, but there are a couple of more obvious security upgrades that the average Joe can appreciate.

The first is an automated phishing filter. This filter, which is turned on by default but can be switched off by advanced users, warns people when they encounter known phishing websites. In extreme cases the filter may even deny access to a site to protect the integrity of user's PC.

The second noticeable security feature places access to ActiveX controls (ActiveX is a technology used to embed multimedia files in web pages) in the past. ActiveX controls have acted as a primary means by which hackers have gained control of systems. Blocking access to these controls should keep ActiveX from being exploited by malicious programmers.

Security was obviously a primary focus for Microsoft's engineers during development, but they managed to find time to devise a few original usage

enhancements as well, such as the ability to view groups of web pages as high-resolution thumbnails in a single page. This feature allows users a clear view of multiple pages of the same time, providing the ability to more quickly identify and select the page they're looking for.

Another handy upgrade that shows Microsoft had people working to improve the user experience is a new print function that automatically fixes the width and height issues of non-standard web pages to ensure they fit properly on a piece of paper. (Hopefully this will mean the end of wasted pages printed with just a couple of words or a tiny graphic.)

So while IE7 may be limited, it also has a few new features all its own. But the big question on everyone's minds, however, remains security. Microsoft takes a good game, but not until IE7 is in the hands of the public—including hackers—will we know just how safe the new browser really is.

In the meantime, the biggest problem faced by IE may well be Microsoft's slowed and lengthy development process. More than five years have passed since Internet Explorer 6 was released, and competitors made serious inroads into Microsoft's browser space in the interim. If we have to wait another five for Internet Explorer 8, Microsoft's sizable challenges may gain even more ground.

(Note: A near-final beta is available at www.microsoft.com/IE7 to ahead to launch with Windows Vista next year.)

By Chad Sapienza

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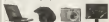
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Living with Linux

Part 1: Linux as a desktop environment

Welcome to *Living with Linux*, a new series on using Linux as a desktop environment in a digital age. In this series we will explore Linux applications for transferring images from a digital camera, editing digital images for prints or posting to the Internet, creating and listening to MP3 files, keeping in touch with friends via instant messaging, accessing email, burning archival CDs and DVDs, watching DVD movies, and browsing the web as well as more traditional applications such as word processing, spreadsheets, simple databases, and PowerPoint-like presentations.

A large number of Linux desktop applications have matured into excellent products that are capable and easy to use by anyone already accustomed to a Windows or Mac environment. I'll highlight several of these and provide tips and occasional tutorials on getting the most out of them.

To provide a convenient way for new users to ask questions and seek help, I've created a companion site further afield: a blog called *Living with Linux* located at living-with-linux.blogspot.com. The blog extension to the column will provide links to Internet resources on Linux and Linux applications as well as additional technical material that will supplement the print version of the column.

The Linux distribution I've selected for this series is Ubuntu Linux (www.ubuntu.org/). Ubuntu Linux is based on the excellent Debian GNU/Linux distribution but has the advantage of being very easy to install and to use. It's a free Linux that can be downloaded and burned to CD for installation. If you don't have this capability, Ubuntu will mail you a CD at no cost.

The Ubuntu CD is a "live" CD meaning that you can use it to boot right into Ubuntu Linux to take it for a test drive, without risking damage to your current computer. It runs slowly in this mode, but it gives you a taste of the Ubuntu desktop environment in a way that is completely safe.

The actual installation of Ubuntu Linux will not be covered in this column because the word limitation would not permit me to cover it in enough detail. Instead, I have provided installation notes, and links to installation documentation, on the *Living with Linux* blog.

If you're a Windows user who has never used Linux before, you might well wonder why anyone would choose to use an operating system that is not even on many people's radar. There is no simple answer to this, but here are some of the reasons that some people use Linux.

• Linux is generally safer to use than Windows. There are very few Linux viruses in the world. Ubuntu Linux in particular locks down the Linux

environment to a highly safe level for casual users.

• Linux is cheap, as in free, and most Linux desktop applications are also free. You can make Linux very attractive to someone living on a student budget or, like myself, living on a retirement income.

• Linux is cool. When you use Linux, you're participating in one of the most wholesome, interesting communities in the world, where people share their skills and time to making free software available to everyone and in their own language where possible. As an antidote to the highly commercialized society we live in, Linux has no peer.

• Linux is "techie." A distribution such as Ubuntu is easy to use for a non-technical user, but Linux can take you as far as you want to go on the technical side, including building web servers and developing programs in a number of programming languages for which all the necessary tools are free.

• Linux is fun. People who use it enjoy exploring its applications and uses. If you're the kind of person who has the right mindset for Linux, it makes your computing environment a particularly interesting place to hang out.

Linux is not for everyone, of course, but if you find yourself attracted by the possibility of running Linux as your desktop, even if it's in addition to Windows rather than replacing Windows, welcome aboard. Let's explore it and have some fun!

By Gene Williams

Gene Williams is a writer/photographer living in Fort Collins, Colorado. He can be reached at gene@lhp.com.



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Moving to Mac: Maintenance

As winter approaches, people tend to perform a few basic maintenance tasks to get ready. If you own a house, you'll clean the yard and make sure the windows aren't going to leak. If you have a car, you'll get a winter tune-up and switch to the snow tires. While your Mac isn't as susceptible to winter as your car and home, it's still worth spending some time performing basic maintenance tasks to make sure it continues to run smoothly, no matter the season.

Setting permissions

Those who have used Mac OS 8 may remember a task called "rebuilding the desktop." The good news for those switching to Mac OS X is that OS X uses a different filing system that's based on files, and rebuilding the desktop is now a thing of the past. Also, the Mac's file system typically does a pretty good job of keeping itself in good shape, so there's no need for defragging. What you do need to do regularly is to make sure all of your file, directory and disk permissions are in order.

The process for checking and repairing your permissions is fairly quick. Switch to the Finder and open up a new window. Click on the Applications folder, scroll down to the Utilities sub-directory, and double click on Disk Utility. When the Disk Utility application opens, it will list your hard drives as the left-hand sidebar. Simply click on the hard drive you want to check, and a list of options will appear in the right-hand pane.

There will be several tabs available to you, but you'll want to stay in the section listed "First Aid" so you could inadvertently erase your hard disk using one of the other sections. Under First Aid, choose "Verify Disk Permissions." Disk Utility will run through all of the files and folders on your computer and check them to see if everything is in order. If there are any problems

found, you can choose the "Repair Disk Permissions" button to fix them up. Verifying and repairing your disk permissions should take no more than a few minutes.

You can also verify your hard drive's general health by clicking on the "Verify Disk" button on the right-hand side, but this is probably only necessary if you're having serious ongoing problems.

Orbit

If you're not a huge fan of delving into system utilities and want one program to help you manage your basic maintenance tasks, your system preferences and even help you tweak your user interface, you'll want to check out Orbit, which is available free from Titanium Software (www.titanium-software.fr/orbit/orbit.html). The program is now available as a Universal library, so it will work on both Intel and Power PC based Macs.

The first thing that happens when you fire up Orbit is that it will ask you for your system password, while it's generally bad practice to type your system password in for any program that asks, Orbit uses your password so it can have proper access to your system in order to perform maintenance. As soon as you enter your password, you have access to a number of different sub-menus, like Permissions (where you can change things like how your scroll bars work, what your default image format is for saving screenshots, how your Book, Dashboard and Finder work, and other things). Maintenance (including the verify and repair permissions tasks listed above), Cleaning (which helps you empty out the various file and browser caches found on your system), and more.

If you're curious, you can even use Orbit to check what's in your various system files, but unless you're a fan of long text-based through-system logs, there may not be much to see here.





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Personal Computing

Low-cost Colour Lasers

Colour lasers are attractive for home or small office use for a number of reasons. With the entry cost now at around \$300, they are priced competitively with mid-range inkjet printers. They are faster than inkjets, particularly for making multiple copies of the same document. On cheap office paper the image quality is arguably better than a colour laser than from an inkjet. And colour lasers are cheaper to run, at the order of three to five cents per page for black and 36-60 cents per page for full colour.

But they definitely take up more desk space and weigh a lot more. And even though the cost per page sounds agreeable, replacing toner cartridges is expensive. Colour lasers use four – cyan, magenta, yellow and black – and each toner cartridge will set you back \$100-\$150. Fortunately they are rated for at least 1,000 pages, with high capacity ones good for up to 5,000 pages. Manufacturers typically quote the page counts with something like "at five per cent coverage," which isn't much, so in the real world you won't get that mileage, but even so, they last much longer than inkjet cartridges.

HP GL checked out a couple of the least expensive colour lasers on the Canadian market. The Hewlett-Packard Color LaserJet 9500 has a manufacturer's suggested price of \$349 although I've seen it advertised for \$299 at some stores. The Lexmark CS500 has a suggested retail price of \$299 but sells for as low as \$260.

Older Dymo and Brother have small office colour laser products, but they begin at over \$400. And Samsung was in the midst of a model change, so its new entry level model wasn't available to us in time. (And I noticed as I was preparing this that Brother is offering a rebate with its entry level Phaser, which brings the price under \$300.)

Apple's and Orange's

The HP GL 9500 and Lexmark CS500 are priced within \$400 of each other, but they are quite different machines. They use different underlying technologies. HP is what's called a single pass printer which means the four toner units are integrated in a single paper pass. Lexmark CS500 is a multi-pass printer, so the toner hues are applied in successive passes. Multi-pass printers are much faster at printing single hue documents, theoretically they should be able to print a black-only document in about a quarter the time of a full-colour one. Single pass printers will print black-only or full colour pages at roughly the same speed.

These performance differences were evident in my speed tests. The Lexmark blazed through a 10-page black text-only word processing document in under 30 seconds, while the HP took about three times as long to print the same file.

However, for colour printing, the two took roughly the same time to print a nine-page PDF that was a mix of black and coloured text, spot colour graphics and photographs. And to print a 10-page full-page test booklet of mainly photos, the HP was slightly faster.

Even though both use four toner cartridges, their colour characteristics are different, so that in side-by-side comparisons, the reds and blues are slightly different. The HP also prints everything slightly darker than the Lexmark. For spot colours and black-only text, both are amazingly good when you consider the price, but the darker output of the HP is less flattering to photos, making some samples look a bit muddy.

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Thomas, M. and Roberts, J. (1994) *Corporate Governance: A Practical Approach*. London: Paul Chapman.

Regioselective Phenyl ether has limited colour reduction activity

Open the cartridge door and you see four toner cartridges stacked one on top of each other. The design means the cartridges very accessible when they need to be replaced. However, the door assembly is attached to the front panel, so it's exposed, when you open the panel to change cartridges.



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The paper tray, which holds up to 250 sheets at the bottom of the printer and the output tray is at the top. One aspect of the HP unit that surpassed me with paper selection. With monochrome lasers it's been my experience that they are not too fussy about the kind of paper you feed them. However, the HP unit is more like an inkjet and seems to adjust the print process to take into account the kind of paper being used. This is a good thing, but it also means you have to be somewhat careful to set the paper parameters correctly. I had inadvertently left the paper selection to "plain paper" when I was using some HP glossy brochure paper, and the output was so bad I initially thought the printer was defective. There were dark spots in the print where the toner had obviously not been properly fused, and streaks and globs of toner smeared across parts of the paper. When I discovered my mistake and set the paper type correctly, the problems vanished, and the prints were flawless once more.

Overall, the colour quality is very good, and photo printing acceptable. For spot colours — a logo on letterhead or graphics in a report — the output looks very impressive, but photos print a bit stale — something you could correct in image editing software.

Although the print quality is a bit better the Lexmark, especially for photos, the HP unit seems to be an overall smarter device — easier to set up, lighter if you need to move it around and with styling that's a refreshing departure from office beige.

Lexmark C500n

Selected Specifications

Price: **ASAP \$189 (\$150 street)**
 Rated print speed: 31 ppm (black only), 9 ppm (full colour)
 Print Resolution: 4800 x 600 dpi
 Paper Capacity: 250 sheets
 Connectivity: USB 2.0, Ethernet
 Size: **dimensions** 14.9" x 14.2" x 39.5 cm (5.9" x 5.6" x 15.6" in.)
 Weight: **29 kg (64 lb.)**
 Toner: **all Black** (\$600 sheet rating) \$170, Cyan Magenta and Yellow (\$600 sheet rating) - \$150 ea.

High Points: Built-in networking, high-yield toner cartridges available, colour settings can be tuned, drivers for Windows and Macintosh, very good colour output, even with photos.



High points: weight (30 kg) makes it something of a handful for a home office.

Lexmark Canada has set the price of the C500n at an ASP of \$189, and lists it online for \$150, making it quite a bargain. The Lexmark unit gives you 3200 x 600 dpi output, monochrome print speed of 30 pages per minute (eight ppm for colour), built-in Ethernet and the option to use high-capacity toner cartridges rated at 3,000 pages (or 5,000 pages for black). The Lexmark has a 320 MHz processor and 64MB of memory. As was noted in the Apple and Orange section earlier in this article, this model's pass printer has excellent black-only print speeds and full colour speed is comparable to the HP (which one would expect as they are both rated at 9 ppm for full colour).

The C500n has every good point. The photo print quality was close to the reference photo inkjet prints that the HP's performance, and the printer menu offers more options to tune the colour output. Although it's still not good enough to compete with a comparably priced photo inkjet for fine art printing, its colour is very pleasing and photos, even on office bond, look very good. I ran into some toner adhesion problems with the Lexmark — on samples of generic inkjet (yes, inkjet — silly me!) card stock, the printouts had bare spots in the printout, and the toner would flake off when rubbed. The lesson to be taken — when you go to the store to buy paper, be mindful of the designation for laser or inkjet. It can make a difference.

Like the HP, the four colour toner cartridges are stacked on top of each other, and are easily accessible when the front panel is opened. The paper tray drops into a slot underneath while the HP and Lexmark unit cover nearly the same footprint, the Lexmark looks a bit bulkier because of its heavy duty.

The C500n is more suitable as a small office workgroup printer than it is as a home printer. It's networkable, and it's a lot heavier than the HP 3600 (30 kg vs. 12 kg for the HP). It also has a constant fan noise even when at rest — until the unit goes into sleep mode. It's not very loud, comparable to the fan noise from a desktop PC, and would likely just disappear amid the other office equipment noise in a typical workplace. But nevertheless it would be noticeable in a relatively quiet home office, especially when compared to the HP, which is mostly dead silent in standby mode. When printing, the C500n also sounds like a bit busier.

However, if you are willing to put up with the slight noise, and have the space and a sturdy table, the C500n would be a useful addition to someone's office for very fast black document printing and good overall colour quality.

By David Tomlin

aspires inkjet

There are a few specific situations where inkjet printers make more sense. For very light duty, a sub \$100 inkjet is hard to beat. Cartridge replacement cost, which is the biggest ongoing expense with an inkjet, isn't going to be much of a factor if you don't print much or often.

For fine art and photography printmaking where resolution, total range, archival permanence and colour fidelity are important, a low- or high-colour photo inkjet is as superior to a colour laser that there's no contest. As well, if you need postcards that are larger than letter or legal size, you can get into a wide-range inkjet for less money than a tabled laser.

But for general colour work for business applications like flyers or for personal publishing projects like reunion scrapbooks etc. where you might want 10 or 20 multi-page documents, a colour laser is worth considering.

DV, or Not DV

Sound's Important - Everywhere! Digital Audio Editing, Part 2

It's long been the shame of many video producers that audio is the poor cousin in the media world. Often, as little as 10 per cent of a video's production budget is spent on sound, and just as often, that is to the video's loss.

Put another way, how long did silent movies (pictures without good sound) last in opposition to radio (good sound without pictures)?

As we saw in last month's DV, or Not DV, PC-based hardware support for audio production is becoming more common, more functional and more economical. In fact, the latest issue of HUB Digital Living, subtitled The Audio Issue, was dedicated to spending good — whether singing, playing an instrument or building sound samples.

As we explained there are dedicated software solutions for each great music program for creating your very own CD, copying programs for original musical tracks, sampling tools and MIDI programs for sequencing and composing, powerful programs for recording, mixing and publishing music.

And, as digital video editors know pretty much every video editing software program has some sort of audio functionality, from basic two-track sound tools to sophisticated multi-track audio mixing and manipulation programs. Video editors like Adobe Premiere do have some audio functionality. Audacity is the company's dedicated sound program,

and while it is well-suited for music,ingles and soundtrack work, it is very good for spoken word material as well. Likewise, Apple's Final Cut Pro has audio tools, but nowhere near as many or as powerful as in its dedicated audio program, Soundtrack.

So, with a simple nod to the those and other powerful audio tools (Dubase, or ProTools, come on down!), here in Part Two, we'll look at a couple of software programs for the editing and production of spoken word or vocal based audio content.

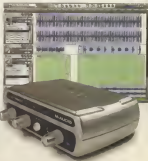
Let's start where things sound good right off the bat: good, easy and cheap!

Audacity is a handy little audio recording and editing program for all PCs and their operating systems. It is open source software, freely distributed under the General Public License (my copy of the program came with the Minilink 24/96 mobile digital recorder). Like all GPL software, Audacity's source code is open and available to investigators, enhancement and improvements from the user base.

Audacity works with high quality sound (and can record and edit 16- 32- and 64-bit audio at up to 96 KHz). Using its own dithering and re-sampling algorithms, Audacity works with a wide range of audio formats and sample rates, converting them automatically in real time. It supports several common audio file formats (again, you can refer to the last issue of HUB DL for more technicalities about music and audio), such as WAV, MP3, AIJ, and Ogg Vorbis files. Support for MPEG formats is available, but Audacity does not currently support MP4, AAC, or other such proprietary or restricted file formats.

Audacity records audio through a microphone or mixer, or you can use it to digitize recordings from cassette tapes, vinyl records, or minitapes. With some sound cards, it can also capture streaming audio, and be used to create multi-track recordings (its default is two tracks).

Level meter displays can monitor volume levels before, during, and after recording. A range of audio effects are available, such as equalization, compression, echo, phase, reverse, and more. The



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program can be used to remove static, hiss, hum or other unwanted noise, using a series of notch filters and overlays.

Editing with Audacity is a breeze. Using a familiar Cut, Copy, Paste

and Delete metaphor, manipulating sound clips is as easy as doing word processing. There's unlimited undo (and redo), so mistakes are easily corrected and processes easily repeated.

The program uses what's known as an "Envelope" tool for fading or raising volume smoothly, and a mouse-driven "Drawing" tool to alter individual sample points.

Even though I have access to other audio programs, and powerful video editing tools, I often use Audacity for editing spoken-word podcasts. It's able to help me quickly cut out unwanted sections, clean up undesirable noises, and package the 'cut' with music, effects or other sound sources in hand toiled — especially at the post.

n-Track is an audio and MIDI editing software, newly available in its Studio 5 version.

This Windows-only PC program is available in 32- and 64-bit versions (running natively on x64 versions). Using a 64-bit internal sound path makes for the maximum audio quality available on today's CPUs. It's priced at less than \$100.

nTrack is optimized for the latest dual-core and hyperthreading CPUs, and its multithreaded design takes advantage of extra CPU processing power to support more tracks and effects. Depending on the song structure and buffer size, the gain over a regular CPU can be around 5.7x (dual-core) or 1.1x (hyperthreading), according to the manufacturer.

nTrack is compatible with a wide variety of 16- and 24-bit single and multichannel soundcards that use PCI, USB or FireWire (IEEE 1394) or audio interfaces with ASIO, MME, DirectSound or other compatible audio drivers (again, refer to the last issue of MIB: DL for details about audio technologies).

Those technicians who, n-Track is a powerful digital multitrack recorder that transforms your PC into a powerful audio recording studio. You can record, play back and mixdown your audio tracks while applying effects, real time input processing, automated ADX channels sends and returns, and more. The program supports 24-bit, 502 kHz recording, 64-bit mixing,

multiple channels soundcards, live input processing, CD burning, MP3 encoding and more.

It's not quite as easy as Audacity to get audio in and out quickly, but it does allow for a lot more audio processing and manipulation. Built-in effects include reverb, compression, parametric and graphic EQ, echo, pitch shift, chorus, multiband compression, and a spectrum analyzer.

At the higher price points expected for the most powerful and feature-packed audio software programs comes Antares and the latest version of its Auto-Tune program. (Auto-Tune 4 is out now; an enhanced Auto-Tune 5 was expected at press time — but note that no plans for dual core support were announced.)

Auto-Tune is called a professional pitch correction solution for Mac OS X and Windows XP, and it's used primarily to correct intonation problems in vocal or solo instrumental performance. It does so in real time, without distortion or artifacts, while keeping all of the expressive nuances of the original performance.

Over a typical pitch correction song, it is simply not possible to tell that a sound has been processed, except that it is perfectly in tune. It's possible to "save" even the most off key or vibrato-affected vocal (or instrumental) performance, and that's why it is well-known and well-liked in the music recording business.

Another Antares program, called Throat, is a dedicated "vocal designer" — a "physical modeler" of spoken sounds, effects and artifacts — means the point, for example, of adding "breathiness" to a recording.

According to some observers (studio engineers are notoriously clout-hungry) programs like Antares' are why rising fees from artists like Cher, Gwen Stefani and even Paris Hilton sound so good — or so put in another way, are so pitch perfect?

You may not need the power or expense — around \$200 — of programs like Antares for your audio editing needs, but know they are out there. If needed, they can change audio from the poor cousin to the media family treasure.

By Lee Richmond

Lee Richmond is a freelance writer and independent video producer for the company West On-A-Roll, an independent company providing editorial, media production and consulting services to individuals and companies across North America. He can be reached at leerichmond@gmail.com.

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Film fest goes mobile

Mothers start with cell phones, sheep or large dogs.

The mobile music phenomenon — content produced on and created with mobile phones — is gaining both popularity and respect among filmmakers as it opens new avenues for creative visual output as well as a compelling new space for storytelling.

Media mobility brought together Motorola and the 2006 Toronto International Film Festival

Sei unique and ground-breaking single-shorts created by filmmakers from the Talent Lab WaveFilm Project, were released during the Festival after being processed to make them suitable for big-screen-viewing. Each was shown in the theatre, and online as a stream on video.

Meranda provided the filmmakers with a Hotel videophone, and service from Bell Mobility to experience mobile filmmaking firsthand. Some also used Meranda's 3G/PS phone.

One of the participants, Eamonn Kelly, an award winning film director, stage producer and music video maker, used his video enabled hardware for an innovative piece created for the band The Pembots, and the song History Remade about the history of Toronto, its people and places.

By creating a unique coloring of five hand-drawn illustrations along a block of Skydio's, Cass-Connelly was able to add a personal feel to his new business's logo.

He described cell phone-acquired video as having "a very specific look, use and response. It's almost iconic; people instantly know it's a cell phone. Like

the Personal Computer, call store video at 1-800-255-5888.

Aesthetically, Gase-Gonnery found a mobile video team have a new identity. "Technically, it has some bang (and) tag, but as to the non-existence of a code which go with phone video. "It has a shallow depth of field, and a forced perspective to pull the video. The video shot was 25 frames per second [as opposed to film's 24, or video's normal 30] but he was still limited to shooting in three minute chunks, owing to the size of the limited external memory card — i.e. the phone. 12/24/98

Cell phone image dimensions are usually 376 x 144 pixels, a far cry from the 1920 x 1080 size of high-definition video. It was obviously necessary to blow up the video for theatrical release, but the problems of position, image degradation and aspect ratio conversion were still no mean feat.

Nevertheless, another participant, filmmaker Andy Marshall found new ways to combine his main interests in the small screen.

"The cell phone lets you take pictures where normally you wouldn't — or couldn't — have video cameras," he says. "Wherever you can take a photo, you can make a movie. Also, because of its size and its 'normalcy,' pretty much everyone is comfortable and familiar with cell phones — it gives great access to subjects and scenery. It's perfect for the documentary filmmaker, as a cell phone is a lot less intimidating than a camera, and also far quieter. Besides, if that's the footage you have to use, understand."

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Lenovo Who?

Big into PCs, but unknown

What would you do if you were the world's next biggest personal computer maker but almost few in North America had even heard of you? That's Lenovo's race to beat.

Some racing history: Lenovo is the China-based personal computer manufacturer that acquired IBM's personal computer division for US\$1.25 billion in 2005. That acquisition gave Lenovo a couple of valuable brands—the ThinkPad and ThinkCenter desktop lines—and vaulted it to Number Three globally, behind Dell and Hewlett-Packard.

Taking over those marques gave Lenovo a considerable and immediate slice of the North American market, but that's not enough to ensure long-term success for two reasons. First, the halo effect of BigBlue's heritage won't linger forever (Lenovo can use the IBM name for up to five years). The premium IBM brands are vulnerable to depreciation—either real or in the minds of potential purchasers—into generic products from yet another far-east PC builder.

Second, today's PC game is as much about consumer retail as hardware, and again—IBM got out of the retail PC market years ago. You just don't see ThinkPad or ThinkCenter PCs in electronics and office supply retail stores alongside HP. Accessed the like. So even with IBM's portfolio, Lenovo has no shelf presence where we ordinary citizens shop.

What is the company doing about that? To provide some answers, Lenovo Canada recently arranged a media tour to its product development center in Raleigh, North Carolina and invited HUB IL along. Raleigh was chosen, I suspect, because it's home to one of IBM's premium R&D centers—and when the new Lenovo facility is complete, one of Lenovo's premium R&D centers as well. The Raleigh venue helped communicate a message about continuity from IBM to Lenovo. Continuity in staff, since many of the key IBMers that shaped IBM PC product development are now part of the Lenovo crew, as well as continuity of product quality and innovation as a result of the new product showcase and facilities solicited.

Daqian Lohani, a senior VP and chief marketing officer said that Lenovo's main marketing slogan is "the best engineered PCs" to bolster that claim. Garry Grano, who is the executive director of Lenovo's Raleigh Advanced Technology Center talked about some of the innovations that flowed out of the center when it was IBM-run, and continue to flow under Lenovo's direction.

ThinkPads have long been popular with business users for a few reasons, not the least of which is the overall physical robustness of the machines. I've seen IBM laptops stand on their own, pour water onto the keyboard and fling them onto the floor (bag and pony show choices for sure), but they demonstrate some of the engineering within the machines—an accelerometer that detects sudden movements and parks the hard drive heads to avoid shock, rigid alloy cases that reduce screen flexing and breakage, and waterproof pads under the keyboard (complete with drainage holes). Under Lenovo, the latest innovation is the roll cage, a magnesium alloy skeleton that further protects the electronics within.

To popularize that sort of engineering prowess, Daqian Adrien developed a viral marketing campaign called "the Lenovo Taper" which purport to be secret tapes showing the latest technologies Lenovo engineers are working on. These are amusingly fictional but highly convincing. One showed a steel arm dropping a Lenovo notebook

from a height of a few meters. But before the notebook can crash to the floor, drop-protect thrusts emerge from the sides of the machine casting it to hover momentarily before gently landing on the floor.

Lenovo in Canada

Murray Wright, President of Lenovo Canada, says the challenges here in Canada are similar to Lenovo's problem in the Americas as a whole—containing the "Lenovo who?" syndrome.

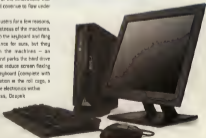
With the "Think" product line inherited from IBM, Lenovo Canada has held its own, and Wright says Lenovo Canada has maintained a Number-Two position in commercial PCs this year. To further bolster its position among business users, in September Lenovo Canada signed a deal with Air Canada under which Lenovo will supply almost 300 PCs to Air Canada's 30 Maple Leaf Lounge Business Centres, located here and abroad. One of the biggest challenges for Lenovo Canada is that it started with zero retail presence. Earlier this year, it introduced the first new PCs for North America under its own brand. Called the Lenovo S3000, it includes desktop and notebook models, and will be the products the company uses to tackle the retail market. So now, if you go to office supply chains in Canada, you may actually come across Lenovo branded products.

By David Garfield

Lenovo a force in Asia-Pacific

Lenovo has strong assets and a portfolio of products aimed at the consumer market. For example, it is the biggest domestic cell phone brand in China and has about 20 per cent of the PC market there. The trouble is, it has operated almost exclusively in the Asia-Pacific region since its China.

You might have seen Legend brand motherboards in Canadian shops in the late 90s. Legend was the anglicized name of Liensiang Company, which has been around since the mid 1980s and morphed into Lenovo, or "the new Legend" in 2003.



Audition 2.0 Essential Training

If you've ever taken part-time audio courses in college, you'll know how frustrating it can be to have an instructor managing a classroom of students all of varying abilities and technical aptitudes. Nothing beats one-on-one instruction, which is where Audition 2.0 comes in.

Audition 2.0 is one of many online video training programs offered at Lynda.com (www.lynda.com). The video covers the basics of computer audio, from software, file management, recording, creating multi-track sessions and techniques to creating a CD, adding effects and mastering.

Clips are structured as real-time tutorials, where the application is open and the instructor is manipulating the program while giving voice-over instructions in the background. The video appears in a browser window, making it possible to have the tutorial open alongside your working window to follow along.

With a subscription to the Library (\$525 per month, US\$50 per year or \$375 for a premium membership), users receive access to tutorials offered as streaming video (not downloadable). Premium subscribers can also download exercises to their computer to complete.



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Revitalizing PC Gaming

Microsoft's Games for Windows Initiative

With the launch of two new video game consoles this month, many skeptics seem to think that PC gaming is, once again, on its last legs. Microsoft, on the other hand, doesn't think so. In fact, it claims that there are

more than 200 million hardcore, moderate, and casual Windows-based PC gamers out there — more than all current-generation console gamers combined — making the PC by far the most accessible gaming platform available. The Games for Windows initiative is how Microsoft plans to take advantage of that huge install base, breathing new life into PC gaming in the process. While it was originally

announced at the end of 2005 the strategy won't become completely effective until the launch of Microsoft's new OS, Windows Vista. Out of the box Vista will incorporate some of the features outlined in the Games for Windows specifications, as well as a host of new technologies that enhance the PC gaming experience. Furthermore, because the PC games and Xbox marketing departments were consolidated during the creation of Microsoft's Interactive Entertainment Business, Vista's release is being treated much like that of a console launch, complete with launch titles and exclusive game-related technology. The series to raise awareness for PC gaming, but also increase anticipation for Vista.

The basic idea of the Games for Windows initiative is to provide developers, retailers, and gamers access to whatever resources they require to maximize their experience with the platform.

On the developer side of things, many refinements have been made to the qualification process used to ascertain if a game is worthy of the "Games for Windows" branding. Enhancement falls into two categories, each with their own set of requirements. Essentials, whose recommendations are comparatively fundamental (support for the Xbox 360 Controller and Vista's Windows Game Explorer) and Showcases, which go a step further by supporting additional, more advanced, Windows technology (like DirectX 10 and 64-bit multi-core processors). Fulfilling the higher Showcases rating results in more interest from Microsoft, potentially leading to more marketing support. The problem with adhering to the strict guidelines imposed by the Games for Windows label is that they would normally require more development time to implement. Fortunately, at least if Microsoft's claims for its XNA Development Suite prove true, developers can incorporate the features with ease while simultaneously cutting down on the time needed to create the rest of the game as well. Furthermore, because XNA Development shares the same toolkit for both PC and Xbox 360 game creators, porting a game to and from either platform is also easier than ever before (meaning a game could be developed for both platforms with minimal effort and cost).

Probably the most dramatic changes from the consumer's perspective will be seen in the retail space. While a lot of the developer enhancements will remain behind the scenes, Games for Windows



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branded games will have entirely new packaging [compliant with a logo], as well as easily distinguishable shelving in an attempt to further blur the line between console and PC gaming; there will also be PC titles loaded with the latest PC games for customers to demo right in the store. All of which culminated into better marketing for the PC as a gaming platform, hopefully resulting in an expansion of the market. Obviously it will be the gamers who reap the benefits of the guidelines enforced on developers and retailers and the benefit of Vista plays a big role in this plan. Along with having all of the new technological goodies (like DX10) the new OS ships with many front end applications geared towards gamers as well (like Windows Game Explorer and Windows

DirectX 10. Truly Next-Gen Graphics

Direct 10 is an Application Programming Interface (API) used for the various multi-media aspects of a Windows Operating system. Although it has different components, DirectSound for audio, DirectInput for controllers/gamepads, DirectShow for video playback - the most anticipated improvements are those made to the graphics portion of the API, known as DirectX. The following are main improvements of DirectX 10.12

Pixel - DX10 includes overhead to the point where, if the same application were written for DirectX 9, it is up to 20 percent faster.

Geometry Shaders - Like Pixel and Vertex Shaders, Geometry Shaders will add an extra layer of programming possibilities. Most notable effects achieved with the new Shader pipeline include real-time displacement maps and motion blur done in the hardware.

All in One - In order for graphics hardware to take advantage of DX10 features a new stack absolutely all of the requirements. This will make a consistent starting point for developers to create from.

It's important to note that, because DirectX 10 was written from the ground up and integrated with even more game functions of the OS, it will only be available for Windows Vista. Utilizing it is also a requirement for receiving the Showcase trailer of the Games for Windows branding. Needless to say the graphics capabilities of DirectX 10 are not possible on any of the "next" generation consoles.



Regardless of the outcome, it's good to finally see Microsoft take PC gaming seriously, since no other company has enough influence within the industry to be able to pull the kind of thing off. While Nintendo and Sony ready themselves for the new generation of video game systems (one in which the Xbox 360 already has a 10 million unit head start), Microsoft's investment in PC gaming will undoubtedly pay the company dividends when the console era cools off.

By Mike Petersen

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Put PowerPoint on steroids

With Producer for PowerPoint a multimedia presentation is simple to create

The Producer for PowerPoint tool is probably the world's best kept secret from PowerPoint users. Instead of simple slide shows, Producer lets you add movies and other multimedia features to a PowerPoint presentation and to display and play these simultaneously. For example, for example, have a slide show displaying in one area of the screen and a movie in another. The movie might be a recording of someone narrating or making the presentation, it could be other information of relevance to the presentation.

Producer for PowerPoint is a Microsoft add-in product and is available as a free download for PowerPoint 2003 from <http://microsoft.com/Go/Pop>. However, the program is not compatible with Internet Explorer 7 so unfortunately you won't be able to use it on a computer with Internet Explorer 7 installed. Download (and install) the program and then run it from the Microsoft Office menu.

Producer for PowerPoint works in a similar way to Windows Movie Maker, so if you're familiar with that program you'll find Producer easy to work with. Like most authoring programs, there is a timeline across the foot of the screen onto which you can drop and arrange slides, still images, movies and audio onto separate tracks. At the top of the screen are collections of media objects and a preview pane that you can use to preview your objects.

To create a show, download, install and launch Producer and click the Slides folder in the tree pane at the top left of the screen. Double click Import Slides to import a PowerPoint slide show. You can also import video, audio tracks and still images the same way. Importing an object just makes it available, it doesn't commit you to actually using it. Until an object appears on the timeline, it isn't actually in use.

To compose your presentation, drag clips, audio and slides onto the relevant tracks on the timeline. If two objects are on different tracks but at the same position on the timeline they will play at the same time. This way you can show a movie while playing a series of PowerPoint slides.

You will use templates to format the way the screen looks in the presentation player. To alter the arrangement of elements on the screen, click



Use templates to control the placement and sizing of objects on the screen during the presentation

the Presentation templates column in the tree pane and choose a template to use. Drag and drop the template onto the templates track on the timeline. You can add more than one template to different positions on the timeline to change the layout during the presentation. For example, when the movie is the most important element to focus on, you can use a template to show it in a large size and then make the slides larger when they are more important.

Like any movie editing software, you can add Effects and Transitions to your presentation. To add these to your presentation, select either Effects or Transitions and drag an effect onto the clip or a still image on the video track. Effects alter how the image appears such as aging it or converting it to black and white. You use Transitions to control the change from one still image or video to another and you apply these by dragging and dropping a transition between clips or images on the video timeline.

Producer includes a Capture tool for capturing the screen as you are performing a task using a piece of software and to narrate your presentation. To use this, click the Capture icon and choose what to capture. Once the capture process is complete and you've saved the file, you can drag and drop them onto the timeline like any other element.

Use the Synchronizer tool on the toolbar to synchronise audio with the slide presentation. When you run it, your audio and video tracks play alongside a small preview of the slide show. Navigate the slide show from one slide to the next and Producer tracks the timing and arranges the duration for each slide according to the timing you've created. This can be manually altered later on if desired.

To test your presentation, click the Preview Presentation pane and click Play. Once you're satisfied you can choose File, Pack and Go to pack the presentation to take it to another computer. To publish your presentation, click Publish and choose a place to publish it to. A Producer presentation is made up of a number of different files including HTML files and Windows Media Video movie files. The entire presentation can be played in a browser such as Internet Explorer or Netscape.

By Helen Bradley



The capture tool includes a method for capturing the computer screen and creating a presentation

Car audio

Are the days of the mobile CD jukebox numbered?

Although regarded as the pinnacle of car audio when they debuted just a couple decades ago, retail music CDs are certainly not that today. They simply don't hold enough songs compared to modern, ultra-compressed MP3 standards. They typically incorporate just three or four really good tunes and a ton of filler, and they have fixed playlists. Think, even if you have a dozen of them rattling around your car ready to fall out of their cases, it is swapped in and out of your deck, you have maybe a couple hours of good music.

You could buy yourself a CD changer, but then you'll lose a chunk of trunk space and good stuff will have just a fraction of the latest songs your buddy stores in his comparatively minuscule portable music player.

A better answer is to stop allowing those pesky retail CDs to outpace in the first place.

I want my MP3

The easiest and most obvious way to do so is to burn a best-of MP3 CD. Considering that a 160Kbps compressed music track sounds virtually identical to CD-quality audio when you're listening along at 60 mph yet it just takes an MB in size, and given that a standard recordable CD will handle about 700 MB of data, you can count on fitting perhaps a couple hundred songs per disc. You can double or even triple that if you're willing to

compress and degrade your audio even further. Just make sure your deck is capable of playing encoded music before you burn the disc. Today's better decks support MP3, WMA and AAC playback, and many offer multiple lines of display too.

Still, compressed music CDs aren't today's best option. For that, you need to escape the realm of CDs and focus entirely. One of the hottest trends involves the marriage of portable music players and car decks.

The most affordable method is an FM transmitter, a nifty device that plugs into an iPod-type player and essentially acts as a miniature radio station, wirelessly broadcasting your playlist through your deck's FM tuner. Better transmitters will also charge your iPod's battery while additional operate by their cable.

What's the frequency, Kenneth?

The drawbacks to the FM prescaler are many, however. Most critically, it sounds like FM radio, complete with all the inherent interference and low-grade fidelity. Moreover, some converters work efficiently only when they're positioned literally inches from the deck. And none of them will allow you to control your iPod through your deck.

A better idea for those with a deck-mounted cassette deck is a cassette adapter. Looking just like a standard cassette but with a short cord that connects to your portable player's 3.5mm headphone or line-out jack, an

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adapter delivers better audio than an FM transmitter and, in rare cases, supports limited thru-the-deck iPod control. Yet the setup is convoluted, and the resulting sound is not as clean or as punchy as that of an MP3 CD.

Truth is that if you're serious about your music, you'll want a hardwired solution. If, for example, you have both an iPod and a factory or aftermarket deck that supports a CD changer, you may want to look online or at your local car dealership or audio center for a proprietary iPod adapter. Plug one end to your iPod, the other to the CD changer jack at the rear of your car deck, and find somewhere to mount the adapter box. Not only does this setup deliver full-fidelity sound and at least some degree of thru-the-deck control, but it also charges your player's battery.

If your deck has a 3.5mm auxiliary input, you have yet another hardwired option. Auxiliary jacks are nothing new in the world of car audio, as evidenced by the fact that even some moving North American car manufacturers are now including them with certain factory decks. Yet for

the smart shopper, caveat emptor: Auxiliary inputs do not charge your player's battery, nor do they allow you to control your player's functions from the deck.

USB Coming to a car near you

Undoubtedly, the best play-to-deck solution is a USB connection. Now featured in top-end decks by the likes of Kenwood, Alpine and Clarion, USB offers uninterrupted two-way communication. Thus, you can listen to your iPod or non-iPod player in full high-fidelity charge to its batteries, and conveniently control all its functions and see all its play-in information right there on your dashboard.

Moreover, USB is the ideal answer for those who would rather store their music on a comparatively inexpensive flash-memory "thumb" drive or even a miniature hard drive. Merely run the USB cable from the back of the deck into the glove compartment or some other inconspicuous cubbyhole, connect the drive, and control everything from your deck. Some USB decks, such as those in Kenwood's Excite series, offer "voice indexing," wherein a synthesized voice announces each new artist, genre, or song function. You don't even need to take your eyes from the road to know what's coming up next.

It's important to note, however, that car USB is still in its infancy and the list of supported USB devices is not set in stone. Kenwood, for example, has officially approved just a smattering of the current crop of flash-memory drives. Furthermore, USB connections are limited by the amount of power they can deliver. Though enough for most players and drives, it isn't for some.



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Say bye-bye to CDs?

Alternately, you can strap the cables together and get instead for a deck such as JVC's RD-SH1000, which features a floppable-mounted USB port and a floppable-mounted SD memory card reader. A dash-mounted USB port? Great design? Well, yes, except when you accidentally knock your hand past the dash and snap the protruding sleeve in half, or accidentally leave it in your dash when you exit the car and stow away brief in the neighborhood. For unluckily, the memory card lies inside the unit.

With all these options, each of which is theoretically far superior to any CD technology, a CD-less car audio future would appear to be at hand. And indeed it is. Given, for one, will arrive a lineup of no-CD decks at the Consumer Electronics Show in January. 2007. Featuring USB and SD memory card slots, an FM tuner, and Bluetooth support, the units will in all probability be the first in a new wave of audio hubs that offer the most proud compact disc out for proverbial trip.

Radio Go-Go

The future also looks bright for motorists who don't want to bother with personalized music collections at all, and prefer instead that old standby, radio. Apart from standard AM and FM listeners now have the option of satellite radio, a subscription service that delivers a wide variety of commercial-free channels to anyone who owns a satellite receiver.

The primary benefit of satellite radio are its commercial-free format and its clean digital signal that is theoretically equally strong anywhere on the continent. However, fans of specific genres of music or talk or sports are likely to find a channel that caters strictly to their preferences. However, there are drawbacks. Satellite is a paid service

that currently costs between \$12 and \$25 per month. Additionally, because even the most advanced car decks don't include a satellite receiver, you must buy and install a separate receiving unit.

A potentially better bet for those among us who'd rather save than spend our money is HD Radio. HD Radio is essentially an analog-to-digital upgrade of the standard AM and FM signals, wherein the AM band sounds as good as traditional FM stereo and the FM band sounds almost as good as your CD player. HD is not a subscription service, so you won't pay monthly fees. All you need is a deck that supports HD and a separate HD receiver. Indeed, some decks now feature a completely integrated HD solution.

The most discussed downside to HD Radio is that it's funded by commercials—the same commercials you'll hear through standard AM and FM. Furthermore, being a terrestrial rather than satellite-based technology, the HD signal will degrade as you move further from the nearest tower. But the biggest hurdle for Canadian HD Radio fans may be accessibility. Digital radio (once more commonly known as DAB, or "digital audio broadcasting") isn't exactly taken off in this country, due mostly to bad tape, technical issues, and an apparent lack of consumer interest. Surveys suggest consumers wanted better content, among other things. Though HD Radio technology permits "multicasting" (the broadcast of two simultaneous programs—one each in digital and analog format) doing so is naturally a more expensive proposition for the radio station. It's a Catch-22 situation that may or may not be solved anytime soon. Stay tuned.

Whatever route you want to take, there's no shortage of Web-based resources. We like two sites in particular: www.cruisefile.com, a respected online electronics distributor that publishes how-to guides and unbiased user reviews, and www.canadadot.com, an extremely active car audio enthusiast discussion forum.

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